The Korean Intellectual Property Office (KR) Publication of Application (A)

(51) Int.CI. H04M 1/23

(11) Publication No

10-2002-0087632

(43) Publication Date

2002-11-23

(21) Application No

10-2001-0026477

(22) Application Date

2001-05-15

(74) Agent

Sun-Seok Yang Jang-Won Park (72) Inventor

Seong-Eun Bang

Beom-Jun Cho

(71) Applicant

LG Electronics Inc.

■ Examination Requested : Requested

(54) CHARACTER INPUT METHOD FOR MOBILE COMMUNICATION DEVICE

Abstract

1

Machine Translation Human Translation

The present invention relates to the character input method of the mobile communications terminal, and because the layout structure of the character matched with each button of a keypad is complicated and until is well acquainted with the keyboard structure, vowel and consonant which a user every time uses on a butto are found and a user has to press a button as the times of the order matched with that, the order has the problem that the time to be many is required in the letter completion. Therefore, the present invention has the effect that it is the Hangul letter arranged in a keypad matched in case of a consonant with the numeric butto one sick of the terminal keypad. It is easily familiar with the keyboard structure and it minimizes the button input number as the simplification box in the input of the Hangul letter and in order to be matched with each direction key according to the form of the vowel and consonant a vowel rapidly assembles.

Representative Drawing(s)

Fig. 3

Descritption

- Brief explanation of the drawing
- 2 Fig. 1 is an example diagram showing the keypad configuration of the conventional mobile communications to
- 3 Fig. 2 is a flowchart showing the Korean character input process of the conventional mobile communications

- 4 Fig. 3 is an example diagram showing the keypad configuration of the mobile communications terminal havinς character alignment structure.
 - Details of the Invention
 - ▶ Purpose of the Invention

The Technical Field to which the Invention Belongs and the Prior Art in that Filed

- The present invention relates to the character input method of the mobile communications terminal, particular character input method of the mobile communications terminal which is the Hangul letter arranged in a keypa matched in case of a consonant with the numeric button one sick of the terminal keypad, and it is easily famili the keyboard structure and minimizing the button input number as the simplification box in the input of the Ha letter and in order to be matched with each direction key according to the form of the vowel and consonant wl vowel rapidly assembles.
- The recent mobile communications terminal adds various supplementary features to the simple telephone fur it gradually developes into the portable information appliances. And the input function including the SMS (Shc Message Service) or the telephone number, a schedule, a memo and miscellaneous information etc. is equip the basis. In addition, it is the situation which presently is possible to a chatting and web surfing.
- 7 But supplementary features are the function of a most inputting a character and being performed. By using th adhered to the terminal, it inputs a character.
- 8 Therefore, in the terminal manufacture, it becomes the field which the research for inputting easily a characte enhancing the convenience of a user is important besides the thing making the voice quality good.
- 9 Generally, in case of Hangul, because of the initial sound, a neutral, and the final consonant being assembled made to the structure English or the other national characters, T'ien-Ch'ih or the character described in the at usually matched with one button. The character which is matched with that whenever it presses a button is se outputted. And when a character more than four including the complex consonant etc. is matched because th a button is small, it is the generally as shown in <u>Fig. 1</u> representative consonant and the only which a vowel is indicated.
- 10 That is, the double-byte complete Hangeul standard code 2350 person and combined 11172 are expressed if KSC 5601 instituted as the button (<0> ~ <9>) which is in a keypad of 10 by the method as described above i year.
- 11 Certainly, the input method of Korean code using the keypad having the character alignment structure of desidetail is illustrated with reference to the flowchart of Fig. 3.
- 12 One end, if the menu selection button is pressed (S11) so that a user use the arbitrary supplementary feature supplementary features according to that are displayed in a screen.
- And then, a user selects the function of wanting with the middle and a user presses the edit button of the corresponding function and a user converts into the edit mode (S12) and it inputs the Hangeul factor (S13).
- Accordingly, in the normal mode, when the button of the keypad used for the input a telephone number input character it is converted and a keypad is comprised of the form like <u>Fig. 1</u> for example,, '??' is outputted if <1> is pressed for the first time. And '??' is outputted subsequently if it once more presses.
- 15 Therefore, if that is, the initial sound is inputted if a user presses the first key, the terminal confirms whether it

- and consonant (A consonant, and the double consonant) which the terminal can input to the initial sound (S14 displaying this to a screen if it fits, the next key input is waited for (S15).
- A user inputs a neutral if a next, and the initial sound are indicated on a screen. The terminal then confirms w is vowel and consonant (A vowel, and a diphthong) which the terminal can input to a neutral (S16). With displ to a screen if it fits, the next key input is waited for (S17).
- 17 Accordingly, in case the character input is completed to a neutral, it presses 'completion' button or 'the next' b without the need to input the final consonant and a user terminates the character input. Otherwise a user altoinputs to the final consonant, a user terminates the character input to a method.
- 18 Of course, even in this case, if the final consonant is inputted (S18), the terminal confirms whether it is vowel consonant (A consonant, the complex consonent, and the double consonant) which the terminal can input to consonant. If it fits, this is displayed to a screen (S19) and the Hangul character combination is completed (S2 process as described above is repeated and the terminal is comprised a sentence.
- 19 But there is a problem that when the Hangul letter is inputted with the hitherto method, the time to be many is to the letter completion because the layout structure of the character matched with each button of a keypad is complicated and vowel and consonant which a user every time uses on a button are found until it is well acque with the keyboard structure and a user has to press a button as the times of the order matched with that.

Technical challenges of the Invention

Therefore, an object of the present invention are to provide the character input method of the mobile communiterminal it creates in order to solve the conventional problem as described above, and which is the Hangul let arranged in a keypad matched in case of a consonant with the numeric button one sick of the terminal keypad easily familiar with the keyboard structure and it minimizes the button input number as the simplification box in input of the Hangul letter and in order to be matched with each direction key according to the form of the vowe consonant which a vowel rapidly assembles.

Structure & Operation of the Invention

- The present invention for achieving this kind of a purpose is characterized that the number (0~9) key and func (*, #) of a keypad are arranged to the button included of a dozen as to the mobile communications terminal we comprised in order to press vowel and consonant matched with the keypad button and it inputs Hangul so the consonant be seriatim matched. It is comprised of order to dispose so that the vowel in which the shape of vocansonant is similar to the direction key can be matched with the button used as the direction (△, ▽, ⊲, ▷) ke and a character is inputted.
- 22 Referring to the figure as described in detail, it is the same as that of the next time.
- One end, the character input method differently matches in the button including the function key (*, #) of a do: number (0~9) key only a consonant in what it matches a consonant more than T'ien-Ch'ih and vowel in the conventional number (0~9) key and it matches in the direction (△, ▽, ⊲, ▷) key only a vowel. It easily finds voconsonant in the character input. It matches the direction key which is similar to the form of vowel and consor shape in case of moreover, a vowel. In that way the button has the feature which is easily well acquainted wit keyboard.
- That is, in case of († , †), it looks similar. It looks similar in case of († , †). It looks similar in case of (⊥, ⊥) similar in case of (⊤, π).

- Therefore, it has the feature which by intuition knows although it does not make every effort in order to bear to location of the button specially matched with a vowel mind and enhances the convenience of an use.
- Moreover, in case of a consonant, it does not have the correlation binding the button of the feature, which car with a button or two T'ien-Ch'ihs with one. Therefore, the method in which one vowel and consonant are matc one button can enhance a convenience like a convention rather than several vowel and consonants are matc one button.
- Therefore, in the present invention, as shown in <u>Fig. 3</u>, a consonant from (¬) to (≡) is matched in the button the function key (*, #) of a dozen. The rest (¬, ¬) is matched in both sides function key (*, #) of the numeric lowest bottom. In that way the push frequency of the button for inputting desired vowel and consonant is redu the wide viewing direction is secured.
- 28 In the meantime, the vowel (8) (-, 1) matched to the direction key matches in both sides number (1,3) key c numeric key top.
- Accordingly, by pressing the corresponding to button the respective matched consonant and vowel are immerinputted to a keypad. Until corresponding to vowel and consonant show up like a convention in case two or m vowel and consonants are matched with one button, successively it presses.
- In case of the consonant (14) matched to a next, and a keypad and 1:1 (つ, 口) and vowel (10) the double cor (元, 匹, ェ, 忠, ス, ス), successively the third is pressed the button in which (一,) is more matched. Successive rest consonant presses a twice.
- **32** For example,, (\neg) and (\land) are inputted in case of inputting (\neg) .
- The direction key of the upper end is utilized in case of inputting a next, and a vowel. If if the left direction key pressed with 1 time, (†) is outputted and it is yellowish with 2 time, (†) is outputted. And if the right key is prewith 1 time, (†) is outputted and it is yellowish with 2 time, (†) is outputted. And if the phase direction key is with 1 time, (†) is outputted and it is yellowish with 2 time, (†) is outputted. And if the down direction key is prewith 1 time, (†) is outputted and if it is yellowish with 2 time, (†) is outputted.
- 34 When a next, and the diphthong (위, 위, 위, 위, 의, 기, 기, 기, 기, 기, 기) are inputted, the single consonant is assembled like the case of inputting the complex consonent and it comprises.
- **35** For example, as to (되), (돼) comprises with (그) + (]) with (그) + (]) and (국) (국) comprises with (\top) with (\top) + (]) etc.
- 36 In case of the diphthong of the except, it decides to omit the description about that since comprising with the emethod.

• Effects of the Invention

As illustrated in the above, the character input method of the present invention mobile communications termine the effect that it is the Hangul letter arranged in a keypad matched in case of a consonant with the numeric busick of the terminal keypad. It is easily familiar with the keyboard structure and it minimizes the button input not the simplification box in the input of the Hangul letter and in order to be matched with each direction key account the form of the vowel and consonant a vowel rapidly assembles.

Scope of Claims

Claim[1]:

The character input method of the mobile communications terminal which arranges so that a consonant be sematched with 12 buttons; and is comprised of order to dispose so that the vowel in which the shape of vowel consonant is similar to the direction key can be matched with the button which uses as the direction (4, 7, 4, of 4 and it inputs a character of the mobile communications terminal which is comprised in order to press vow consonant matched with the keypad button and it inputs Hangul comprising the number (0~9) key and function#) of a keypad.

Claim[2]:

The character input method of the mobile communications terminal of claim 1, wherein the vowel matched to direction key matches (\uparrow , \dagger) in the right direction key (\triangleright); it matches (\uparrow , \dagger) in the left direction key (\triangleleft); it (\bot , \bot) in the phase direction key (\triangleleft); and it matches (\top , \top) in the direction key (\triangleright).

Claim[3]:

The character input method of the mobile communications terminal of claim 1, wherein the consonant (立, ㅎ) seriatim matched with the numeric key including the function key (*, #) of a dozen overlaps in the function key the lowest line of the numeric key in which an indistinguishable is visually facilitated with the consonant (초, ㅌ matches.

Claim[4]:

The character input method of the mobile communications terminal of claim 1, wherein the vowel (−, 1) of 2 matched with 4 direction keies overlaps in the number (1,3) key of the numeric key highest line with the consc □) and it matches.

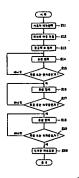
Claim[5]:

42 The character input method of the mobile communications terminal of claim 1, wherein the complex consoner double consonant, a diphthong etc. are inputted by using a consonant and the vowel matched with the numer and direction key; and the structure is comprised of order to seriatim press corresponding to each single cons and the button in which the single vowel is matched according to the structure of vowel and consonant and it





Fig. 1



○ Fig. 2



⊙ Fig. 3